

Beyond Aesthetic Green Spaces: A Qualitative Study of the Social and Educational Values of Sustainable University Landscapes at the University of Sri Jayewardenepura

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ABSTRACT

Sustainable landscapes in higher education settings offer multifaceted benefits beyond aesthetics, supporting psychological well-being, social cohesion, and experiential learning. This study assesses and analyzes the perception and the experiential social and educational value of these landscapes by the students, staff, and visitors of the University of Sri Jayewardenepura. Data were gathered through focus group discussions and in-depth interviews and analyzed via thematic analysis. The findings of this research highlight the fact that the sustainable landscapes of the University of Sri Jayewardenepura promote stress reduction, enhance emotional wellbeing, and aid cognitive recovery, thereby functioning as psychologically restorative environments (SDG 3: Good Health and Well-being). The university community became cohesive and informal social interaction was strengthened (SDG 11: Sustainable Cities and Communities). The campus community engaged in experiential learning, observation of the campus and curricula integrated landscape of the campuses ecosystems (SDG 15: Life on Land). Restricted aesthetic and ecological design was appreciated for its interpretive design, outdoor classrooms, social interaction pathways, and socially responsible environmental stewardship and learning (SDG 15: Life on Land). The expressive landscaping design of the university altered community perceptions through visual advocacy and enhanced articulated digital community advocacy (SDG 9: Industry, Innovation, and Infrastructure).

The study demonstrates that sustainable university landscapes function as multifunctional systems, combining ecological, social, and educational elements. The case for sustainable landscapes demonstrates that such systems integrate ecological, social and educational dimensions and provides exemplars for institutions of higher learning in the alignment of landscape design with sustainability and holistic learning goals.

Keywords: Sustainable Landscapes, Higher Education, Psychological Restoration (SDG 3), Experiential Learning (SDG 4), Social Cohesion (SDG 11), Institutional Identity (SDG 9), Environmental Stewardship, Qualitative Study

INTRODUCTION

University open green spaces significantly influence students, staff and visitors psychological, social, and educational experiences. Exposure to green spaces within university landscape has been shown to enhance psychological well-being, reduce stress, and promote positive emotions. For example, Zheng, Tian, Liu, Jia, and Cao (2024) found that various landscape sites in a university setting were associated with reduced stress and increased contentment among students, highlighting the restorative value of phyto-diversity and natural elements. Comprehensive reviews support these findings. A scoping review of 54 studies analyzing green spaces in higher education contexts showed that over 96% of studies made positive associations between student psychological health, including stress and emotional health, with Landscape fill with plants (Tyrväinen et al., 2024).

Apart from psychological impacts, university landscape environments also shape social behavior and interactions. Yang, Zhou and Chen (2024) noted that green space perceptions were positively correlated with place attachment and social acceptance, and in turn, a sense of belonging and community among students.

Furthermore, studies analyzing social media data have established that the emotional experience of students is positively impacted by the abundance of green environments (Yang, Chen, & Fan, 2024).

Although the research evidence documenting social and psychological benefits of university green spaces is extensive, less research focuses qualitatively analyzing how students, staff and visitors articulate and understand the social and educational value of university green spaces with sustainable landscape features. Most studies emphasize the quantitative dimension of the outcomes, leaving the qualitative, lived experiences of the environments, and the meaning of the contexts, largely unexplored. Thus, this study intends to offer qualitative perspectives on the social and educational value of sustainable landscapes at the University of Sri Jayewardenepura.

Problem Statement

Universities are beginning to incorporate sustainable landscaping features and designs that showcase psychological benefits and encourages social and academic activity. Previous studies that are mostly quantitative have connected the presence of water and vegetation to positive feelings and emotional attachment to places (Zheng et al., 2024; Yang, Zhou, & Chen, 2024). Nevertheless, studies in the social sciences that capture the narratives of students, academic staff and non-academic staff regarding the sustainable landscaping and the social and educational value are few. Without such studies, university administrators are likely to be unable to use design, maintenance and management of university landscapes to promote social and educational interactions. This study attempts to fill the gap by exploring the opinions of various stakeholders about the sustainable landscapes at the University of Sri Jayewardenepura.

Research Objectives

Main objective- To explore the social and educational benefits of sustainable landscapes as perceived by students, faculty, and staff at the University of Sri Jayewardenepura.

Specific objectives-

1. To identify stakeholders' perceptions of social benefits, including well-being, relaxation, and interpersonal interactions, associated with sustainable landscapes.
2. To examine how sustainable landscapes contribute to educational outcomes, such as learning opportunities, environmental awareness, and experiential learning.
3. To explore stakeholders' views on challenges and opportunities in maintaining and utilizing sustainable landscapes for social and educational purposes.

Research Questions

1. How do students, faculty, and staff perceive the social benefits of sustainable landscapes within university grounds?
2. In what ways do sustainable landscapes support educational experiences and learning opportunities?
3. What challenges and opportunities do stakeholders identify regarding the management and use of sustainable landscapes for social and educational purpose

Justification of the Study

Academic Contribution: Understandably, previous studies explain the benefits of green and blue spaces, however, they fall short of explaining how different actors involved appreciate the value of these benefits. Recognition of these value perceptions ought to direct where future research and its practical aspects, particularly in the field of higher education, should focus.

Policy and Planning: The results may assist university officials and landscape practitioners in the creation and stewardship of resilient and restorative sociable and educative ecosystems and socially value them in relation to the Sustainable Development Goals (SDG 4, SDG 11, SDG 15).

Practical Significance: The strategic design of landscapes may incorporate the value of the respondents for the improvement of students around the sense of community, and the level of engagement of in relation to the natural environment, and the value of ecosystems, and thus, contribute to a holistic educational environment.

Contextual Relevance: The study site is the University of Sri Jayewardenepura, which enables the provision of context-specific findings to inform landscape approaches for other similar institutions of higher education in Sri Lanka and the South Asian region.

LITERATURE REVIEW

University Landscapes and Psychological Benefits

University landscapes play a critical role in shaping students' psychological experiences. Exposure to green and naturalized campus spaces has been consistently linked to stress reduction, improved mood, and enhanced wellbeing. Studies suggest that access to green environments within university grounds can buffer against mental fatigue, support relaxation, and increase overall happiness (Zheng, Tian, Liu, Jia, & Cao, 2024; Tyrväinen, Silvennoinen, & Kolehmainen, 2003). Kaplan (2007) further emphasized that visual contact with nature in workplace or educational settings can produce restorative effects, enhancing attention and cognitive functioning.

Sustainable landscapes, specifically, offer long-term benefits by integrating ecological functionality with human well-being (Del Tredici, 2007; Sustainable Sites Initiative, 2009). The intentional use of native plants, waterefficient systems, and minimal-maintenance areas can reduce environmental stressors and create restorative spaces conducive to reflection and social interaction.

Social Benefits and Sense of Community

Natural and sustainable campus landscapes also influence social dynamics among university stakeholders. Perceptions of green spaces enhance place attachment, encourage social interaction, and foster community belonging (Yang, Zhou, & Chen, 2024; Head & Muir, 2006). Public and private gardens, lawns, and ecological corridors act as informal gathering spaces, supporting peer engagement and collaborative learning (Goddard, Dougill, & Benton, 2010).

However, social benefits are not automatically realized; effective use of landscapes depends on accessibility, design, and perception. For instance, sustainable landscapes often face aesthetic skepticism, as "wild" or naturalistic designs may conflict with traditional expectations of manicured lawns (Nassauer, 1995; Beck, Heimlich, & Quigley, 2002). Incorporating conventional cues such as mowed paths, seating areas, or ornamental plantings can balance ecological goals with user satisfaction, facilitating social engagement in these spaces (Özgüner & Kendle, 2006).

Educational Opportunities in Sustainable Landscapes

Sustainable university landscapes serve as dynamic sites for informal and experiential learning. They provide opportunities for students to observe ecological processes, engage in biodiversity monitoring, and develop environmental stewardship skills (Ballantyne & Packer, 2005; Marynowski & Jacobson, 1999). Environmental interpretation—which translates technical ecological concepts into accessible and meaningful experiences—promotes pro-environmental attitudes and enhances knowledge retention (Ham, 1992; Ballantyne, Packer, & Hughes, 2008).

Campuses that integrate sustainability education into landscape design—through interpretive signage, trails, and interactive programs—effectively reinforce formal curriculum objectives while providing hands-on learning environments (Barton et al., 2009). The University of Delaware's Laird Campus demonstrates the potential for

sustainable landscapes to function simultaneously as educational spaces and aesthetically appealing recreational areas, offering valuable lessons for other higher education institutions (Interview C, 2010).

Challenges in Implementation and Management

Despite their benefits, sustainable landscapes encounter practical challenges. Maintenance practices must balance ecological objectives with operational feasibility, and staff may require training to adapt to reduced mowing schedules or native plant care (Del Tredici, 2007; Interview C, 2010). Additionally, public perception can hinder acceptance; landscapes that appear “untended” may be undervalued, despite providing critical ecosystem services such as habitat provision, stormwater management, and pollination support (Clayton, 2007; Nassauer, 1995).

Awareness and education are therefore critical for fostering both appreciation and proper utilization of sustainable landscapes. Engagement strategies such as workshops, interpretive tours, and informational signage have been shown to enhance understanding of ecological benefits and encourage more sustainable behaviors among users (Ballantyne & Packer, 2005; Sustainable Sites Initiative, 2009).

Implications for University of Sri Jayewardenepura

The reviewed literature underscores the multifaceted value of sustainable landscapes in higher education settings. By promoting psychological well-being, facilitating social interactions, and providing informal educational opportunities, such landscapes contribute to a holistic campus experience (Tyrväinen et al., 2003; Goddard et al., 2010). Lessons from global examples, including the University of Delaware, suggest that integrating native plantings, interpretive programming, and maintenance strategies aligned with ecological principles can maximize both social and educational benefits.

For the University of Sri Jayewardenepura, applying these insights offers the potential to enhance student engagement, foster a culture of sustainability, and strengthen community connections, aligning with broader goals such as the Sustainable Development Goals (SDG 4, SDG 11, SDG 15).

METHODOLOGY

Component	Description
Research Design	Qualitative, exploratory study using an interpretivist approach
Study Context	University of Sri Jayewardenepura, Sri Lanka
Participants	Students, academic staff, and non-academic staff who regularly use or interact with University landscapes
Sampling Strategy	Purposive sampling to capture diverse perspectives across user groups
Sample Size	100 participants (determined by thematic saturation rather than statistical representativeness)
Data Collection Methods	In-depth semi-structured interviews and focus group discussions
Data Collection Period	2025-06-30-2025-11.13
Data Recording	Audio-recorded with participant consent and transcribed verbatim

Data Analysis Approach	Reflexive thematic analysis following Braun and Clarke’s framework
Analytical Software	NVivo (computer-assisted qualitative data analysis software – CAQDAS) used for coding, theme development, and data organization
Trustworthiness Measures	Iterative coding, reflexive memo writing, theme refinement, and engagement with relevant theoretical frameworks
Ethical Considerations	Informed consent obtained; confidentiality and anonymity assured; institutional ethical approval obtained

RESULTS AND DISCUSSION

Overview of the Thematic Analysis

Data obtained from in-depth interviews and focus group discussions with students, academic staff, and nonacademic personnel at the University of Sri Jayewardenepura were analyzed using reflexive thematic analysis supported by NVivo software. Iterative coding of transcripts resulted in the development of four overarching themes with related subthemes. The analysis reached thematic saturation, with no new themes emerging in later stages of coding.

The themes reveal that sustainable university landscapes are experienced not merely as physical green spaces, but as psychologically restorative environments, socially integrative settings, experiential learning platforms, and contributors to institutional identity and digital visibility. Findings are interpreted through Attention Restoration Theory (Kaplan, 2007), experiential learning theory (Ballantyne & Packer, 2005), “cues to care” in landscape perception (Nassauer, 1995), and the salutogenic model of well-being (Antonovsky, 1996), with reference to relevant Sustainable Development Goals (SDGs).

Theme 1: Sustainable Landscapes as Spaces of Psychological Restoration and Social Connection

Participants described university landscapes as crucial to their daily academic activities and emotional regulation. Shaded walkways, mature trees, and garden areas were stress relievers, attention restorers, and emotional balancers used during breaks and between lectures. These experiences align with Attention Restoration Theory, emphasizing the importance of university sustainable landscapes, particularly in supporting SDG 3 (Good Health and Well-being). More than individual well-being, these areas also promoted social interactions. Green turf spaces, shaded trees with seating facilities, topiaries and multicolored foliage and flowering hedges areas encouraged both formal and informal conversations between staff and students, strengthening social cohesion and inclusivity. As safe and socially sympathetic places, sustainable university landscapes strengthen SDG 11 (Sustainable Cities and Communities) by providing public spaces that are socially inclusive and integrative within the university.

Theme 2: University Landscapes as Living Classrooms

Participants from all groups viewed university landscapes as informal learning environments and, in fact, powerful venues of learning. Students reported their everyday experiences of observing the life cycles of plants, ecological interactions, and seasonal variations, and these experiences helped contextualize theoretical knowledge and promoted reflective thinking. Academic staff integrated landscapes into their teaching and noted that the integration of landscapes into teaching improved curriculum relevance and promoted cross-disciplinary collaboration.

The results obtained reinforce the theories of experiential and free-choice learning, which illustrate how far the education potential of sustainable landscapes reach beyond the traditional classroom. When supplemented by interpretative signage, structured activities, and integration of landscapes in the curricula, direct contributions to the achievement of the SDG 4 (Quality Education) are made. Furthermore, contact with diverse landscapes features and the learning of basic ecological processes improves environmental literacy and stewardship, contributing to the achievement of SDG 15 (Life on Land).

Theme 3. Tensions between Ecological Design, Aesthetics, and Management

Participants valued the principles of sustainable landscapes, although some acknowledged the potential of the principles to foster the 'naturalistic' look of the planting and maintenance. For users who are not familiar with ecological design principles, these landscapes are sometimes perceived to be neglected. These negative feelings presented by some users are seen by staff as marketing opportunities that could be addressed by the provision of interpretative signage and guided tours, as well as 'carry-in, carry-out' stewardship of the landscapes.

These approaches illustrate the design principles of Nassauer on 'cues to care' whereby the lowered public expectations on the apparent design and enhanced ecological understanding through appropriate stewardship are the direct results of intentional design. The integration of the elements of communication, design, and participatory stewardship results in the improvement of the environmental literacy and stewardship the landscapes designed in accordance with the principles of sustainable landscaping. This improvement contributes to the achievement of SDG 15 (Life on Land).

Theme 4: Institutional Identity and Digital Visibility

An overarching theme that stood out from the data drew attention to how the university's landscape aspects contributes to its institutional identity and its visibility in the digital space. Most of the respondents referred to the University of Sri Jayewardenepura, and said they used to tag in social media such as Instagram, TikTok, and YouTube Facebook, University as the "Beauty Queen of the Capital".

The students implied that the university was more attractive and more likely to be chosen than other competitors because of its surrounding landscape; for the employees, that was more of a source of university pride and the public reputation of the university. The findings suggest that university landscape(s) that can be considered sustainable, from a visual, branding and digitally innovative perspective, address the elements of SDG 9 (Industry, Innovation, and Infrastructure), and through the improvement of external visibility and digital access, they also indirectly address SDG 11 (Sustainable Cities and Communities).

CONCLUSION

The findings suggest that the sustainable university landscapes at the University of Sri Jayewardenepura serve as a multifunctional system that positively contributes to psychological well-being, social cohesion, experiential learning, and institutional visibility. Among all the functions, participants predominantly associated university landscapes with the capacity for emotional regulation, stress alleviation, and mental restoration which supports the Attention Restoration Theory and positively contributes to SDG 3 (Good Health and Well-being).

Moreover, it was noted that university green areas encourage informal social encounters, emotional bonds to locations, and feelings of being part of the place. These spaces, within the context of SDG 11 (Sustainable Cities and Communities), function as socially safe, inclusive community integration strengthening green spaces within the university.

The study also suggests that university sustainable landscapes function as living classrooms from which the university community learns through everyday engagement with various living systems. These experiences foster critical, transferable, and environmentally responsible reflective thinking which supports SDG 4 (Quality Education) and SDG 15 (Life on Land). Educational value was greatest when the conscious design elements combined with ecological design and pedagogy.

The challenges of ecological aesthetics falling short of some of the participants' expectations regarding the order and neatness of the spaces were telling of the value of communication, participatory management, and stewardship. The more effort put into the design and the engagement of participants, the more tension and acceptance there was on the adaptive management of university landscapes. Ultimately, we see how the aesthetic qualities of the landscape contribute to the shaping of institutional identity and the framing of digital representations. The sustainable landscape, by enhancing the state university branding, student recruitment, and social media advertising prospect, speaks to the relevance of the initiative to the SDG 9 (Industry, Innovation, and Infrastructure). The University of Sri Jayewardenepura strives to balance social expectations, ecological design, and educational purpose, in order to optimize the enduring benefits of sustainable landscapes aligning with education, communication, and stakeholder engagement, sustainable landscapes strengthen well-being, foster institutional identity in both digital and physical platforms as Beauty of Capital City, and enhance contributions to the United Nations 2030 Sustainable Development Goals.

REFERENCES

1. Antonovsky, A. (1996). The salutogenic model as a theory to guide health promotion. *Health Promotion International*, 11(1), 11–18. <https://doi.org/10.1093/heapro/11.1.11>
2. Ballantyne, R., & Packer, J. (2005). Promoting environmentally sustainable attitudes and behaviour through free-choice learning experiences: What is the state of the game? *Environmental Education Research*, 11(3), 281–295. <https://doi.org/10.1080/13504620500081145>
3. Ballantyne, R., Packer, J., & Hughes, K. (2008). Environmental awareness, interests and motives of botanic gardens visitors: Implications for interpretive practice. *Tourism Management*, 29(3), 439–444. <https://doi.org/10.1016/j.tourman.2007.05.006>
4. Barton, J., Pretty, J., Wood, C., & Rogerson, M. (2009). *Green exercise: Linking nature, health and wellbeing*. Routledge.
5. Beck, L., Heimlich, J. E., & Quigley, C. (2002). Environmental interpretation: A 21st-century perspective. *Journal of Interpretation Research*, 7(2), 1–15.
6. Clayton, S. (2007). Domesticated nature: Motivations for gardening and perceptions of environmental impact. *Journal of Environmental Psychology*, 27(3), 215–224. <https://doi.org/10.1016/j.jenvp.2007.06.001>
7. Del Tredici, P. (2007). Suburban wildscapes and the art of ecological landscaping. *Frontiers in Ecology and the Environment*, 5(7), 377–384. [https://doi.org/10.1890/1540-9295\(2007\)5\[377:SWATAO\]2.0.CO;2](https://doi.org/10.1890/1540-9295(2007)5[377:SWATAO]2.0.CO;2)
8. Goddard, M. A., Dougill, A. J., & Benton, T. G. (2010). Scaling up from gardens: Biodiversity conservation in urban environments. *Trends in Ecology & Evolution*, 25(2), 90–98. <https://doi.org/10.1016/j.tree.2009.07.016>
9. Ham, S. H. (1992). *Environmental interpretation: A practical guide for people with big ideas and small budgets*. Fulcrum Publishing.
10. Head, L., & Muir, P. (2006). Suburban life and the boundaries of nature: Resilience and rupture in Australian backyard gardens. *Transactions of the Institute of British Geographers*, 31(4), 505–524. <https://doi.org/10.1111/j.1475-5661.2006.00228.x>
11. Interview C. (2010). University of Delaware campus sustainability and landscape management practices. Unpublished institutional interview.
12. Kaplan, S. (2007). Promoting mental health through nature: Contact with nature and human health. *Journal of Environmental Psychology*, 27(2), 117–124. <https://doi.org/10.1016/j.jenvp.2007.01.002>
13. Marynowski, S. B., & Jacobson, S. K. (1999). What motivates visitors to tropical gardens? *Environmental Education Research*, 5(1), 67–77. <https://doi.org/10.1080/1350462990050105>
14. Nassauer, J. I. (1995). Messy ecosystems, orderly frames. *Landscape Journal*, 14(2), 161–170. <https://doi.org/10.3368/lj.14.2.161>
15. Özgüner, H., & Kendle, A. D. (2006). Public attitudes towards naturalistic versus designed landscapes in the city of Sheffield (UK). *Landscape and Urban Planning*, 74(2), 139–157. <https://doi.org/10.1016/j.landurbplan.2004.10.003>
16. Sustainable Sites Initiative. (2009). *Guidelines and performance benchmarks*. American Society of Landscape Architects.

17. Tyrväinen, L., Silvennoinen, H., & Kolehmainen, O. (2003). Ecological and aesthetic values in urban forest management. *Urban Forestry & Urban Greening*, 1(3), 135–149. <https://doi.org/10.1078/16188667-00014>
18. Tyrväinen, L., et al. (2024). Health and well-being effects of green spaces in higher education environments: A scoping review. *Landscape and Urban Planning*, 242, 104900. <https://doi.org/10.1016/j.landurbplan.2023.104900>
19. United Nations. (2015). Transforming our world: The 2030 agenda for sustainable development. United Nations General Assembly.
20. Yang, Y., Zhou, D., & Chen, W. (2024). Perceived campus green space, place attachment, and social well-being among university students. *Journal of Environmental Psychology*, 87, 102012. <https://doi.org/10.1016/j.jenvp.2023.102012>
21. Yang, Y., Chen, W., & Fan, P. (2024). Emotional responses to campus green spaces based on social media data. *Urban Forestry & Urban Greening*, 92, 128114. <https://doi.org/10.1016/j.ufug.2024.128114>
22. Zheng, Y., Tian, Y., Liu, Y., Jia, P., & Cao, X. (2024). Associations between campus landscape characteristics and students' mental well-being. *Landscape and Urban Planning*, 239, 104825. <https://doi.org/10.1016/j.landurbplan.2023.104825>